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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,246	12/02/2003	Martin Obel	P03,0504	3533

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EXAMINER

FAULCON JR, LENWOOD

ART UNIT

PAPER NUMBER

3762

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/726,246

Applicant(s)

OBEL, MARTIN

Examiner

Lenwood Faulcon, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/20/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6 and 10-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Fishler (U.S. Patent No. 6,751,504).

Fishler teaches of an implantable system and method for optimizing the ventricular interpulse delay, during biventricular stimulation (col. 3 lines 23-27). Fishler also teaches that the device comprises a housing which can serve as an electrode that is positioned at a distance from the heart (col. 5 lines 39-44), and a microcontroller that controls various modes of stimulation therapy by use of a microprocessor/control circuitry, memory, logic and timing circuitry (col. 6 lines 1-11). Fishler also teaches that microprocessor control circuits that perform timing and data analysis functions are well known in the art (col. 6 lines 15-17).

Fishler further defines that the lowest pulse energy required to achieve capture is termed "threshold" (col. 1 lines 50-54) and teaches of the use of sensing circuits that employ amplifiers with programmable gain and a threshold detection circuit (col. 7 lines 6-10). Fishler also teaches that the data acquisition system of the device acquires

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electrogram signals (col. 7 lines 55-59) and is used to collect and digitize the QRS portion of the intracardiac electrogram signal for the purpose of measuring the QRS duration or QRS width (col. 7 lines 63-67). Fishler further teaches of the system's ability to analyze morphology data to stored data (col. 7 lines 32-43). Fishler also teaches of the use of a tip electrode (22) and a ring electrode (34).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fishler (U.S. Patent No. 6,751,504) as applied to claims 1-6 and 10-13 above, and further in view of Van Dam et al. (U.S. Patent No. 6,671,549).

Van Dam et al. teaches of pacemaker utilizing QT dynamics to diagnose heart failure, which comprises a digital controller/timer circuit that is coupled to sensing circuitry, including peak sense and threshold measurement unit and a threshold comparator/threshold detector (col. 6 lines 27-40). Van Dam et al. further teaches of monitoring the ST segment and the slope of the electrogram signal (col. 15 lines 27-30).

It would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of Fishler as applied above with the teachings of Van Dam et al. to have implantable pacing device that analyzes the ST segment and the positive and negative slopes/peaks of the electrogram signal. Fishler and Van Dam

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et al. both teach of implantable cardiac device systems that determine the threshold value needed to achieve capture, and thus teach of analogous arts. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system as taught by Fishler to include the analyzing of the ST segment and positive and negative slopes/peaks as they may be indicative of heart problems and useful in determining whether capture has occurred. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of Fishler and Van Dam et al. to have the limitations of claims 7-9.

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fishler (U.S. Patent No. 6,751,504) as applied to claims 1-6 and 10-13 above, and further in view of Bradley (U.S. Patent No. 6,810,284).

Bradley teaches of an implantable cardiac stimulation system that delivers a backup pulse when a loss of capture is detected in the electrogram signal (col. 8 lines 5-7).

It would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of Fishler as applied above with the teachings of Bradley to have a pacemaker that delivers a backup pulse when loss of capture is detected. Fishler and Bradley both teach of implantable cardiac device systems, and thus teach of analogous arts. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system as taught by Fishler to include the delivery of a backup pulse when loss of capture is detected, since it would be an added safety measure for the patient as taught by Bradley (col. 8 lines 5-7). Therefore,

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it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of Fishler and Bradley to have the limitations of claim 14.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Maarse (U.S. Patent No. 6,128,535), Struble (U.S. Patent No. 6,148,234), Bradley (U.S. Patent No. 6,473,647), Stahmann et al. (U.S. Patent No. 6,496,586), Florio et al. (U.S. 2001/0049542), Kroll (U.S. 2001/0049543), Maarse (WO 99/29368), Russie et al. (WO 01/74441).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lenwood Faulcon, Jr. whose telephone number is 571-272-6090. The examiner can normally be reached on Monday-Thursday from 9 to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela D. Sykes, can be reached on 571-272-4955. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should


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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).



Lenwood Faulcon, Jr.



George Manuel
Primary Examiner